PKF Mining Survey
Impairment Reviews

October 2009
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Introduction

Since publishing our mining survey in 2008, which looked at the impact of the introduction of IFRS on financial reporting for the sector, the world has experienced a global economic downturn, precipitated by the banking crisis. There has also been increased volatility in commodity prices and access to additional funding has become more difficult.

In corporate reporting terms, the consequence of these changes in economic conditions may be an immediate need to write down the value of exploration assets and mineral properties. For others there may be a need for additional disclosures to explain that the value of those assets has decreased, closing the gap on its book value and that the likelihood of impairment losses in future has increased.

Mining companies surveyed

PKF has selected 35 mining companies whose latest financial accounts are for the period ending on or after 31 December 2008. Our sample includes 30 listed on AIM with a market cap of over £10m and 5 listed on the Main Market with a market cap under £350m at 30 June 2009. A complete list of the companies selected can be found in Appendix 1.

Aim of survey

The aim of our survey was to identify how many of our surveyed companies had suffered an impairment and to examine:

- the main causes of impairment
- the minerals of the projects that have been impaired
- the regions where the impaired projects are located
- the stage of development of the impaired projects
- the market capitalisation of the affected companies
- the nature and extent of disclosures made in relation to impairment.
Summary of key findings

• Of the 136 projects held by the 35 companies in our survey, only 26% were impaired and the percentage is considerably lower if diamond projects are excluded. Also, none of the single project companies made an impairment charge. We are surprised that, despite the severe economic conditions affecting the mining industry in late 2008 and early 2009, relatively few mining properties were impaired.

• The percentage of diamond projects impaired was 68%, much higher than any other mineral. This is a reflection of the current turmoil being experienced by the diamond industry compared to other sectors of the mining industry.

• We were surprised that 20% of gold projects suffered impairment, given that gold prices have remained consistently high over the last 18 months. However, further analysis revealed that, where stated, the causes of impairment were not economy or commodity price related.

• With the exception of diamonds, there are few clear trends in terms of size or nature of company, regions, or minerals for those making impairment charges. This perhaps reflects how widespread the effects of the worldwide recession have been.

• The standard of impairment disclosure is mixed – although some companies made detailed disclosures of a wide variety of assumptions used in their impairment tests, others failed to disclose even those items that are specifically required by IFRS such as discount rate or the cause of impairment.

• The market caps of all but one of the impaired companies had increased between 31 December 2008 and 30 June 2009, the majority by more than 30%. Although the partial recovery in commodity prices is likely to be the main reason for this, it suggests that the extent of impairment may have been less than market expectations and that an impairment is not as damaging to a company’s share price as might be expected.

• It will be interesting to see how the recovery in many commodity prices witnessed in recent months will affect those companies that have already recognised an impairment. Undoubtedly a number of them will be keen to reverse the impairments suffered if economic conditions allow.
IFRS framework

Exploration
IFRS 6 (Exploration for and Evaluation of Mineral Assets) requires exploration and evaluation assets to be assessed for impairment when facts and circumstances suggest that the carrying amounts of such assets may exceed their recoverable amounts. In these circumstances, entities are required to measure, present and disclose any resulting impairment in accordance with IAS 36 (Impairment of Assets).

Development and production assets
Once a project has reached the development phase and is deemed to be commercially viable, IFRS 6 is no longer applicable and instead IAS 36 applies. IAS 36 specifies a number of potential indicators of impairment to be considered, both internal and external to the organisation.

An impairment review is required to be carried out when there is an indication that assets have been impaired. This applies to property, plant and equipment, as well as to capitalised mining assets.

Indicators of impairment
In current volatile market conditions, there may be multiple triggers of an impairment test based on the following factors:
• Insufficient exploration expenditure incurred during the period, infringing the terms of the exploration licence and therefore threatening the loss of the licence.
• Insufficient resources to complete the exploration programme or development phase, so that the commercial production phase cannot be reached.
• Higher than expected costs of finance to develop a resource, meaning that the resource cannot be exploited commercially.
• The period for which the right to explore exists has expired or will expire in the near future, and is not expected to be renewed.
• Lower than expected grades arising from exploration data.
• Reduction in commodity prices, making the resource not commercially viable.
• Increase in development or production costs.
• The carrying amount of the exploration asset being greater than the market capitalisation of the entity.
• Entering into farm-in arrangements with other parties, reducing an entity’s economic interest in a prospect.
Impairment review process

Under IAS 36, an asset or cash generating unit (“CGU”) must be written down to its recoverable amount, being the higher of its fair value less costs to sell (a market based model) and its value in use (an entity specific model).

Fair value less costs to sell is a price usually established by reference to a binding sale agreement or an active market for the trading of the asset concerned. In the absence of a binding sale agreement or active market for the asset, the value should be based on recent transactions for similar assets.

The value in use of an asset or CGU is established by reference to discounted cash flows. This involves the preparation of a forecast model, estimating the future cash inflows and outflows of the project and applying an appropriate discount rate to those future cash flows.

The following issues are usually encountered when determining the value in use of an asset:

- Allocating corporate assets that are not directly attributable to a CGU requires careful consideration.
- If acquisitions have been made in recent years, allocating goodwill to a CGU also requires careful consideration.
- Ensuring that appropriate cash flows are used in the model. Certain cash flows, such as tax and finance should be excluded, whereas others, such as on-going maintenance/capital renewal costs and disposal/rehabilitation costs, must be included.
- Choosing an appropriate pre-tax discount factor to calculate the NPV of the estimated future cash flows can also be difficult, as the discount rate should reflect risks specific to the asset concerned.

From a practical perspective, the exception to the value in use assessment would be where a decision has been made not to proceed with a project.

Disclosures

One of the key issues for companies when considering the subject of impairment is the level of disclosure. The general framework for all disclosures is set out in IAS 1 (Presentation of Financial Statements). In terms of the key sources of estimation uncertainty, IAS 1 requires an entity to:

- disclose information about the assumptions it makes about the future, and other major sources of estimation uncertainty at the end of the reporting period, that have a significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities within the next financial year. In respect of those assets and liabilities, the notes shall include details of:
  (a) their nature, and
  (b) their carrying amount as at the end of the reporting period.

These estimates generally require management’s most difficult, subjective or complex judgements, so the need for adequate disclosure is important to enable the reader of the financial statements to determine how those judgements were reached. The importance of adequate disclosure increases as the number of variables and assumptions affecting the estimation increases, as the judgements then become more subjective and complex, thereby increasing the potential for a consequential material adjustment to the carrying amounts of assets and liabilities.
Although the nature and extent of the disclosures will vary due to the nature of the assumptions, IAS 1 sets out examples of the type of disclosure that an entity should make such as:

- the nature of the assumption
- the sensitivity of the carrying amounts to the estimation methodology and assumptions
- the expected resolution of the uncertainty and the range of likely outcomes within the next financial year
- an explanation of changes to past assumptions in relation to the relevant asset or liability.

In terms of key assumptions applicable to capitalised mining assets, these might reasonably be expected to include some or all of the following:

- commodity price
- level of reserves/resources and/or length of mine life
- foreign exchange rates
- production costs.

It is worth noting that IAS 1 does not require an entity to disclose budget information or forecasts.

Detailed disclosure requirements for impairments are set out in IAS 36. In addition to the amount and nature of the impairment, the key disclosures include, among others, the following:

- the events and circumstances that led to the impairment
- whether the recoverable amount is its fair value less costs to sell or its value in use
- discount rate (for value in use calculations).
Findings

What % of companies and projects had suffered impairment?

Overall 12 of the 35 companies surveyed (34%) had suffered impairment in respect of some or all of their mining properties. This excludes companies which had impaired the value of non-mining property plant and equipment, inventories, loans or debtors.

In total, based on our analysis, the 35 companies had 136 projects (excluding any recently acquired and/or highly peripheral projects). Of these projects, 35 (or 26%) were impaired. 31% of the companies surveyed were single project companies but none of these companies had written down their asset. We were surprised that, despite the severe economic conditions affecting the mining industry in late 2008 and early 2009, relatively few mining properties in our survey had been impaired.

Based on our interpretation of the financial statements, 74% of all companies surveyed stated in their accounts that they carried out an impairment test, with the majority of other companies remaining silent on whether they had or had not carried out such a review. Of those companies that undertook an impairment test, 46% made a charge for impairment.

Of those companies that carried out an impairment review but did not make an adjustment, over 70% stated that no impairment was acquired as a result of the test. The remainder did not specifically disclose the outcome of the impairment test.
What were the main causes of impairment?

Approximately half of the projects were impaired as a result of the interrelated issues of falling commodity prices, the current economic environment and lack of funding. In particular, the fall in the price of diamonds, copper and other base metals such as nickel, lead and zinc had all led to project impairments.

Given the credit crunch, we were surprised that a lack of funding was not disclosed as the reason for impairment in more cases. However, some companies may have disclosed the current economic climate as a generic reason covering a number of factors including a lack of funding.

Exploration and evaluation issues, which were cited in 21% of cases, cover a lack of exploration activity (which may be related to funding), a change of focus to the primary asset, unfavourable exploration results or other geological considerations such as a reduction in mine life. However a number of those companies which cited exploration and evaluation issues as the reasons for impairment also referred to the current economic climate and falling commodity prices as factors in the impairment.

It is surprising that the cause of impairment was not disclosed for as many as 28% of impaired projects, as this is one of the items that is specifically required to be disclosed by IAS 36.
Which types of minerals were included in our survey and which suffered impairment?

<table>
<thead>
<tr>
<th>Mineral</th>
<th>No. of companies</th>
<th>No. of projects</th>
<th>No. impaired</th>
<th>Impairment rate %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold</td>
<td>17</td>
<td>54</td>
<td>11</td>
<td>20%</td>
</tr>
<tr>
<td>Diamonds</td>
<td>3</td>
<td>22</td>
<td>15</td>
<td>68%</td>
</tr>
<tr>
<td>Platinum</td>
<td>3</td>
<td>11</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Coal</td>
<td>2</td>
<td>11</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Copper</td>
<td>2</td>
<td>14</td>
<td>4</td>
<td>29%</td>
</tr>
<tr>
<td>Other base metals</td>
<td>6</td>
<td>21</td>
<td>5</td>
<td>24%</td>
</tr>
<tr>
<td>Ferrous metals</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Other – Phosphates</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

Source: Latest statutory accounts

![Graph showing the percentage of projects impaired for each mineral]
Gold
Gold is one of the few minerals whose price has remained consistently high over the last 18 months. It is therefore surprising that 20% of gold projects in our survey suffered impairment.

In general, the reasons cited for impairments of gold projects relate to issues other than poor economic climate. The one gold company that did state economic reasons for the impairment had copper-gold deposits in its projects and so will have suffered from the collapse in copper prices towards the end of 2008.

Diamonds
From our survey, 68% of diamond projects had been impaired. Of those companies that stated the cause of impairment, all cited either falling diamond prices or the general economic climate as the reason.

All but one diamond mining company in our survey suffered an impairment. Furthermore, DiamondCorp plc, the only diamond company not to suffer an impairment of its mineral properties, wrote down the value of its diamond inventories as a result of the fall in diamond prices. This is a reflection of the particular turmoil being experienced by the diamond mining industry compared to other sectors of the mining industry in the current global recession.

Copper
Copper projects also suffered a relatively high level of impairment as a result of a fall in commodity prices. However, fewer copper than diamond projects have been impaired. A number of the copper projects that had not been impaired were multi-mineral projects and their success was therefore not wholly dependent on copper prices.

Other base metals
Nickel, lead, zinc and other minerals, such as rutile and titanium are included within ‘other base metals’. Of those companies that stated a reason for their impairment, all blamed falling commodity prices.

Platinum
Platinum prices since the start of 2008 have shown a significant fall in the third and fourth quarters of 2008 in line with most other minerals. It is therefore surprising that none of the platinum mining companies in our survey experienced an impairment of their projects.

Coal
Neither of the two coal companies in our survey, UK Coal and Caledon Resources, suffered any impairment to their projects in 2008.

Caledon Resources suffered impairment in 2008 but this related to its investment in a mining technology company, rather than an impairment of its mining properties.
At what stage in the mining life cycle were the impaired projects?

<table>
<thead>
<tr>
<th>Project stage</th>
<th>No. of projects</th>
<th>No. impaired</th>
<th>Impairment rate %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploration</td>
<td>85</td>
<td>26</td>
<td>31%</td>
</tr>
<tr>
<td>Development</td>
<td>19</td>
<td>3</td>
<td>16%</td>
</tr>
<tr>
<td>Production</td>
<td>32</td>
<td>6</td>
<td>19%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>136</strong></td>
<td><strong>35</strong></td>
<td><strong>26%</strong></td>
</tr>
</tbody>
</table>

Source: Latest statutory accounts

Exploration projects were more likely to be impaired than either development or production assets, with an impairment rate of 31%. This is perhaps not surprising, as exploration assets are likely to suffer from impairment due to unfavourable exploration results as well as general uncertainty arising from the poor economic situation and falling commodity prices. However half of the impaired exploration projects were diamond exploration projects which have suffered disproportionately from falling commodity prices. If diamond exploration projects are excluded, the impairment rate for exploration projects falls to 19%.

It is surprising that the impairment rate was higher amongst producing projects (19%) which are already generating cash flows than development projects (16%) which are generally reliant on external funding to build the mine. However, two of the six impaired production projects were diamond mines. If diamond production projects are excluded, the impairment rate for production projects falls to 14%.
In which regions have the projects been impaired?

The 35 companies surveyed had projects in a number of different geographical regions, with the largest regions being Africa (with 40% of projects) and the former USSR (25%). Consequently, the highest proportions of impaired projects were in Africa (45%) and the former USSR (29%).

What is the impairment rate for projects in each region?

<table>
<thead>
<tr>
<th>Mineral</th>
<th>No. of projects</th>
<th>No. impaired</th>
<th>Impairment rate %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>54</td>
<td>16</td>
<td>30%</td>
</tr>
<tr>
<td>Australia</td>
<td>3</td>
<td>1</td>
<td>33%</td>
</tr>
<tr>
<td>Europe &amp; Middle East</td>
<td>15</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Former USSR</td>
<td>34</td>
<td>10</td>
<td>29%</td>
</tr>
<tr>
<td>North America</td>
<td>13</td>
<td>4</td>
<td>31%</td>
</tr>
<tr>
<td>South East Asia</td>
<td>6</td>
<td>1</td>
<td>17%</td>
</tr>
<tr>
<td>South America</td>
<td>11</td>
<td>3</td>
<td>27%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>136</strong></td>
<td><strong>35</strong></td>
<td><strong>26%</strong></td>
</tr>
</tbody>
</table>

Source: Latest statutory accounts

As one might expect, there is no one region with a particularly high impairment rate. Excluding the statistically small sample of companies in Australia and South East Asia, the impairment rate for regions that had impaired projects is between 27% and 31%.

No projects in Europe and the Middle East were impaired, although 9 of the 15 projects related to just one company (UK Coal).

As the survey focused on companies with a December year-end, it only included two companies with operations in Australia, as most Australian companies adopt a 30 June year-end.
What are the market caps of the companies surveyed?

Our survey covered companies with a broad spectrum of market capitalisations. One of the aspects we looked at was whether the companies’ market capitalisation at 31 December 2008 had any impact on whether or not it had suffered impairment.

What are the market caps of the companies surveyed at 31 December 2008?

<table>
<thead>
<tr>
<th>Market cap</th>
<th>No. of companies</th>
<th>No. impaired</th>
<th>Impairment rate %</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;£10m</td>
<td>8</td>
<td>3</td>
<td>38%</td>
</tr>
<tr>
<td>£10m - £20m</td>
<td>5</td>
<td>1</td>
<td>20%</td>
</tr>
<tr>
<td>£20m - £50m</td>
<td>11</td>
<td>5</td>
<td>45%</td>
</tr>
<tr>
<td>£50m - £100m</td>
<td>5</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>£100m+</td>
<td>6</td>
<td>3</td>
<td>50%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>35</strong></td>
<td><strong>12</strong></td>
<td><strong>34%</strong></td>
</tr>
</tbody>
</table>

Source: Latest statutory accounts

In general, there is no clear relationship between a company’s market cap and the likelihood of it being impaired.

However, it is surprising that 50% of the companies with market capitalisations over £100m suffered an impairment, as we had expected larger companies to have greater access to capital and greater resilience to impairment in a tough economic climate.

Despite the impairment adjustments, the market caps of all but one of the impaired companies had increased between 31 December 2008 and 30 June 2009. The vast majority of these increases were over 30%. Although the principal reason for this is likely to be the partial recovery in commodity prices, it does suggest that the extent of impairment may have been less than market expectations or that the disclosure of an impairment is not as damaging to a company’s share price as might be expected.
What was the extent and quality of disclosures?

We reviewed the extent and quality of disclosures made by those companies reporting under IFRS which carried out an impairment review (whether an impairment charge was made or not). There were 21 such companies in our survey, excluding 5 companies reporting under Canadian GAAP which have different requirements relating to impairment.

<table>
<thead>
<tr>
<th>What was the extent of disclosure?</th>
<th>No. of companies</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discount rate</td>
<td>10</td>
<td>48%</td>
</tr>
<tr>
<td>Commodity price – amount disclosed</td>
<td>5</td>
<td>24%</td>
</tr>
<tr>
<td>Commodity price – nature disclosed</td>
<td>5</td>
<td>24%</td>
</tr>
<tr>
<td>Commodity price – total disclosure</td>
<td>10</td>
<td>48%</td>
</tr>
<tr>
<td>Other assumptions – amount disclosure</td>
<td>4</td>
<td>19%</td>
</tr>
<tr>
<td>Other assumptions – nature disclosed</td>
<td>6</td>
<td>29%</td>
</tr>
<tr>
<td>Other assumptions – total disclosure</td>
<td>10</td>
<td>48%</td>
</tr>
<tr>
<td>Sensitivity discussion</td>
<td>7</td>
<td>33%</td>
</tr>
</tbody>
</table>

In general, our assessment is that the extent and quality of disclosures in our survey is mixed. In our opinion, 52% of the 21 companies reviewed had a good or fairly good standard of disclosure. However, the balance were considered in our view to be inadequate in some way. Perhaps this should not be a surprise as the current recession makes the impairment of mining properties a widespread issue for the mining industry for the first time since IFRS was introduced for listed companies in 2005. Companies are therefore still finding their feet on this issue, but will hopefully benefit from a wide array of examples now available.

We were surprised that less than half of the 21 companies disclosed the discount rates used in the impairment tests, as this is either one of the disclosure items specifically required by IAS 36 or is a key assumption under IAS 1. A number of those companies that did not disclose the discount rate were exploration companies which may have been unable to produce reliable cash flows and may therefore have written down the carrying value to nil.

Given that the carrying value of mineral properties is likely to be material to the mining companies in our survey, we expected a greater disclosure of other key assumptions such as commodity prices, resource/reserve levels and other assumptions as required by IAS 1. In addition, the extent of disclosures on the sensitivity of carrying amounts to key assumptions was low at only 33% of the 21 companies reviewed.

The mixed nature of disclosures on impairment may stem from the fact that IAS 1 does not require budget information or forecasts to be disclosed in respect of sources of estimation uncertainty, which may encourage some companies to limit the nature and extent of their disclosures in this area.
Discount rates

Of the 21 companies surveyed, 48% disclosed the discount rate they had used to test for impairment. Surprisingly, when considering only those companies that had suffered impairment, the percentage disclosing the discount rate they had used was lower at only 33%.

<table>
<thead>
<tr>
<th>Company</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caledon Resources</td>
<td>12.00%</td>
</tr>
<tr>
<td>DiamondCorp</td>
<td>10.00%</td>
</tr>
<tr>
<td>Gem Diamonds (Australia project)</td>
<td>8.60%</td>
</tr>
<tr>
<td>Gem Diamonds (Lesotho project)</td>
<td>17.40%</td>
</tr>
<tr>
<td>GMA Resources</td>
<td>10.00%</td>
</tr>
<tr>
<td>Highland Gold (USD)</td>
<td>10.75%</td>
</tr>
<tr>
<td>Highland Gold (Rouble)</td>
<td>14.63%</td>
</tr>
<tr>
<td>KazakhGold</td>
<td>10.00%</td>
</tr>
<tr>
<td>Kenmare Resources</td>
<td>8.00%</td>
</tr>
<tr>
<td>Metals Exploration</td>
<td>10.00%</td>
</tr>
<tr>
<td>Oxus Gold</td>
<td>10.00%</td>
</tr>
<tr>
<td>UK Coal</td>
<td>12.50%</td>
</tr>
<tr>
<td><strong>Simple average</strong></td>
<td><strong>11.16%</strong></td>
</tr>
</tbody>
</table>

Excluding the above discount rates for Gem Diamond’s Lesotho project and Highland Gold’s Rouble denominated cash flows, which reflect higher political or currency risk, the simple average discount rate would be 10.19%.

These discount rates are higher than those used by the large mining companies, such as Rio Tinto and Anglo American, which have better access to capital and which disclosed discount rates of 8% and 6% respectively.

IAS 36 requires entities to use a pre-tax discount rate as cash flows are required to be pre-tax cash flows. Of the twelve discount rates disclosed above, nine disclose that the rates used are pre-tax rates and three are silent on whether they are pre or post-tax rates.

Canadian GAAP

Although we have not specifically considered Canadian GAAP disclosure requirements, Canadian GAAP will be replaced by IFRS for accounting periods commencing on or after 1 January 2011 for publicly accountable enterprises in Canada. Companies wishing to adopt earlier than 2011 may do so by application to their applicable securities commission.

It is interesting to note that, under Canadian GAAP, an asset’s carrying value is compared to undiscounted cash flows to determine if an asset is impaired, whereas under IFRS it is compared to discounted cash flows. In its accounts, Eastern Platinum Ltd disclosed that under Canadian GAAP, no impairment charge was required to be made, whereas under IFRS, a material impairment charge of US$314m would be required. It will be interesting to see how many other Canadian GAAP companies will have different results under their impairment tests when IFRS is more widely used in a few years time.
Example disclosures

We have extracted what we consider to be some of the better examples of disclosures on impairment due to the level of disclosure in relation to the key assumptions. Beneath each subheading below is a quote from the relevant organisation.

Discount rate

GMA Resources

After comparing the discounted future cash flows derived from these estimates (using a 10 per cent discount rate) with the carrying value of the relevant assets, the Directors concluded that no impairment charge is required.

Gem Diamonds

Discount rates are outlined below and represent the real pre-tax rates. These rates are based on the weighted average cost of capital of the Group and adjusted accordingly at a risk premium per cash-generating unit, taking into account risks associated with different cash-generating units.

Discount rate for each cash-generating unit

- Letšeng Diamonds – 17.4%
- Kimberley Diamonds – 8.6%

Commodity price

Oxus Gold

Financial models in respect of AGF’s operations, using a discount rate of 10% pre-tax and gold prices of $850/oz have been prepared and the board is satisfied that the Group’s share of the resultant net present values exceed the current carrying value of the investment.

Caledon Resources

The estimated future cash flows from proven mining properties are based on... the weighted average coal price remaining above US$108 per tonne.

Other assumptions

DiamondCorp

The Group prepares cash flow forecasts derived from the most recent financial budget approved by management and extrapolates cash flows for the coming years based on a 25 year project model being the projected life of the mine. For the purposes of this calculation, management assumes a build up in production from 1,500 tonnes to 3,000 tonnes per day in Year 1, then increasing to 4,000 tonnes per day during Year 2, and for each subsequent year of production. The model uses grade assumptions based on geological exploration data incorporated in the independent ‘competent person’s’ report, prepared at the time of the Company’s admission to AIM, and assumes 0% increase in diamond prices from the current depressed levels. Fixed expenses have been assumed to grow at 10% for Year 1 and then 8% thereafter. Variable expenses are directly linked to production and have been assumed to increase at the same rate as production throughout the forecast period. The rates used above reflect historical rates achieved and expected levels for 2009, but are then adjusted for subsequent years.

Caledon Resources

The estimated future cash flows from proven mining properties are based on the mine operating above 93% of capacity, the weighted average coal price remaining above US$108 per tonne, an average US$:A$ exchange rate of 0.70, an average annual inflation of 3% and a discount rate of 12%.
Sensitivity discussion

UK Coal
No impairment of fixed assets would be recognised by the Group if any of the following occurred in isolation:

- The revised estimated pre-tax discount rate applied to the discounted cash flows was increased to 18.0%
- The estimated long-term price of coal of $72/tonne assumed in calculating the discounted cash flows decreased by 4%
- The estimated level of annual production assumed in calculating the discounted cash flows decreased by 0.25 million tonnes.

KazakhGold
The calculation of value in use is most sensitive to the following assumptions:

- Production volumes
- Discount rates
- Future capital expenditure
- Gold prices
- Operating costs.

Comprehensive disclosure

Kenmare Resources
During the year the Group carried out an impairment review of property, plant and equipment. The cash generating unit for the purpose of impairment testing is the Moma Titanium Minerals Mine as this is the primary business and geographic segment of the Group. The basis on which the recoverable amount of the Moma Titanium Minerals Mine is assessed is its value in use. The cash flow forecast employed for the value in use computation is a life of mine financial model. The recoverable amount obtained from the financial model represents the present value of the future pre tax and finance cash flows discounted at the average effective borrowing rate of the Moma Titanium Mineral Mine of 8%. Key assumptions include the following:

- Life of mine at 31 December 2008 was estimated at 27 years, based on the Namalope proved and probable reserves.
- The cash flows assume ramp-up to expected production levels during 2009. Expected production levels are annual production levels of approximately 800,000 tonnes of ilmenite per annum plus co-products, rutile and zircon.
- Product sales prices are based on contract prices as stipulated in marketing agreements with customers or, if no agreements are in place, prices as determined by the lender group’s independent marketing consultant.
- Operating and capital replacement costs are based on approved budget costs for 2009 and escalated by 2% per annum thereafter.

The discount rate is the significant factor in determining the recoverable amount and a 1% change in the discount rate results in an 8% change in the recoverable amount.
## Appendix 1

### List of companies surveyed

<table>
<thead>
<tr>
<th>Company</th>
<th>Minerals</th>
<th>Stage of projects</th>
<th>Region of operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>African Copper</td>
<td>Copper</td>
<td>Exploration &amp; development</td>
<td>Botswana</td>
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<td>African Minerals</td>
<td>Nickel, Diamonds, Iron ore, Gold, Uranium</td>
<td>Exploration</td>
<td>Sierra Leone</td>
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<td>Archipelago Resources</td>
<td>Gold</td>
<td>Exploration &amp; development</td>
<td>South East Asia</td>
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<td>Caledonia Resources</td>
<td>Coal</td>
<td>Mining &amp; exploration</td>
<td>Australia</td>
</tr>
<tr>
<td>Caledonia Mining Corporation</td>
<td>Gold, Cobalt, Plat/Nickel, Diamonds</td>
<td>Production &amp; exploration</td>
<td>Southern Africa</td>
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<td>Central Rand Gold</td>
<td>Gold</td>
<td>Development</td>
<td>South Africa</td>
</tr>
<tr>
<td>Cluff Gold</td>
<td>Gold</td>
<td>Production &amp; exploration</td>
<td>Africa</td>
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<td>DiamondCorp</td>
<td>Diamonds</td>
<td>Production &amp; exploration</td>
<td>South Africa</td>
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<tr>
<td>Eastern Platinum</td>
<td>Platinum</td>
<td>Development &amp; production</td>
<td>South Africa</td>
</tr>
<tr>
<td>European Goldfields</td>
<td>Gold</td>
<td>All stages</td>
<td>Greece, Romania</td>
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<td>Frontier Mining</td>
<td>Gold &amp; Copper</td>
<td>Exploration &amp; development</td>
<td>Kazakhstan</td>
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<td>Gem Diamonds</td>
<td>Diamonds</td>
<td>Production &amp; exploration</td>
<td>Africa, Australia, Asia</td>
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<td>GMA Resources</td>
<td>Gold</td>
<td>Production</td>
<td>Algeria</td>
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<td>Greystar Resources</td>
<td>Gold, Silver</td>
<td>Exploration</td>
<td>Colombia</td>
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<td>Griffin Mining</td>
<td>Zinc, Gold, Silver</td>
<td>Production</td>
<td>China</td>
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<td>Hambledon Mining</td>
<td>Copper, Gold, Silver</td>
<td>Production &amp; exploration</td>
<td>Kazakhstan</td>
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<td>Highland Gold Mining</td>
<td>Gold, Zinc/lead</td>
<td>All stages</td>
<td>Russia and Central Asia</td>
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<td>Kailashi Minerals</td>
<td>Copper, Uranium, Zinc/lead</td>
<td>Exploration</td>
<td>Namibia</td>
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<td>KazakhGold</td>
<td>Gold</td>
<td>All stages</td>
<td>Kazakhstan</td>
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<td>Titanium</td>
<td>Production</td>
<td>Mozambique</td>
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<td>Landore Resources</td>
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<td>Gold</td>
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<td>Exploration</td>
<td>Papua New Guinea</td>
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<td>Kazakhstan and Kyrgyzstan</td>
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<td>Uzbekistan</td>
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<td>Diamonds</td>
<td>Exploration &amp; development</td>
<td>Angola, Central African Republic, Democratic Republic of Congo, South Africa</td>
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<td>Argentina</td>
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<td>Production</td>
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<td>United Kingdom</td>
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<td>Gold/Silver, Uranium, Copper</td>
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<td>ZincOx Resources</td>
<td>Zinc</td>
<td>Development</td>
<td>Yemen</td>
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Source: London Stock Exchange website and company websites
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